#### **Metadata Creation Tool Content Template For Data Stewards**

Instructions for use: Please complete all sections in each table below under the 'FIELD CONTENT' column. The cells associated with each field in the table will automatically expand to accommodate all of the text that is either typed into the 'FIELD CONTENT' column or pasted in from other documents. An \* next to a field name indicates that it is mandatory for information to be entered into the adjacent 'FIELD CONTENT' cell. Italic text in the 'FIELD' column denotes that additional information can be added if available. Do not alter any of the field labels in any of the tables. Please use either the Metadata Creation Tool User Guide or the Metadata Content Guidance Document to assist you with completing each cell. If you need further assistance, please contact the Technical Assistance Team at <a href="mailto:ephtmetadata@cdc.gov">ephtmetadata@cdc.gov</a>

#### I. IDENTIFICATION TAB

#### A. CITATION PAGE

FIELD	FIELD CONTENT
* CATEGORY	Wet and Dry Deposition
* PUBLICATION	February 18, 2009
DATE	
*TITLE	Space-time Predictions of Deposition
URL	
* NATIVE DATASET	Annual Predictive output files (.csv) include the following variables: Longitude,
ENVIRONMENT	Latitude, Predictions, Predictive standard error

#### **B. DESCRIPTION PAGE**

FIELD	FIELD CONTENT
* ABSTRACT	A space-time Bayesian fusion model (Sahu, Gelfand, and Holland, 2009) is used
	to provide annual predictions of wet sulfate and nitrate deposition (kg/ha) for
	2001, by aggregating up from weekly predictive fields. We plan to add surfaces
	for additional years soon. The fusion model uses NADP/NTN weekly wet
	deposition observations and numerical output from the Models-3/Community
	Multiscale Air Quality (CMAQ).
th DV ID D C G E	
* PURPOSE	The predictive surfaces are intended for use by statisticians and environmental
	scientists interested in the spatial distribution of wet deposition for ecological
	assessments.
SUPPLEMENTAL	
INFORMATION	
* PROGRESS	Complete
* UPDATE FREQ.	As needed

## C. TIME & DATE PAGE

FIELD	FIELD CONTENT
* CURRENTNESS	20090123
* DATE TYPE	Range
* SINGLE DATE	
* MULTIPLE DATES	
Date 1	
Date 2	
Date 3	
* RANGE OF DATES	FROM: 2001 TO: 2001

## D. GEOGRAPHIC AREA PAGE

FIELD	FIELD CONTENT
* WEST COORDINATE	-128.09
* EAST COORDINATE	-65.47
* NORTH COORDINATE	51.46
* SOUTH COORDINATE	23.10

### E. KEYWORDS PAGE

FIELD	FIELD CONTENT
* THEME	ISO
* THEME KEYWORDS	Environment
THEME 2	EPA
THEME 2 KEYWORDS	Air
THEME 3	
THEME 3 KEYWORDS	
* PLACES	United States
* PLACES KEYWORDS	Contiguous 48 states
PLACES 2	
PLACES 2 KEYWORDS	
PLACES 3	
PLACES 3 KEYWORDS	

## F. SECURITY PAGE

FIELD	FIELD CONTENT
* SECURITY	EPA classification system
CLASSIFICATION SYSTEM	
* CLASSIFICATION	Medium Confidentiality
* SECURITY HANDLING	May be shared with EPHT partners
DESCRIPTION	
* ACCESS CONSTRAINTS	Access for specific applications within use constraints
* USE CONSTRAINTS	The data are intended for use by statisticians and ecological scientists
	interested in the spatial distribution of wet deposition over the eastern
	US. Collaboration with EPA in these studies is expected.

# II. DATA QUALITY TAB

FIELD	FIELD CONTENT
* PROCESS DATE	20090123
* PROCESS	Through a collaborative process, EPA has developed software to fit the fused
DESCRIPTION	surfaces. At this time, these surfaces are generated at EPA.
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
PROCESS DATE	
PROCESS DESCRIPTION	
* LOGICAL	The predictive surfaces are based on using two sources of spatial information:
CONSISTENCY REPORT	NAPD/NTN wet deposition data and CMAQ numerical output. The CMAQ
	output is produced at EPA ( <a href="http://www.epa.gov/asmdnerl/CMAQ">http://www.epa.gov/asmdnerl/CMAQ</a> ).
* COMPLETENESS	Providing annual surfaces, aggregated from weekly predictive surfaces.
REPORT	

## III. ENTITY AND ATTRIBUTES TAB

FIELD	FIELD CONTENT
* OVERVIEW	The predictive surfaces are intended for use by statisticians and ecologists in environmental assessments that require high resolution spatial information on wet deposition.
* DETAILED CITATION	Input data The NADP/NTN weekly data were downloaded from the NADP wet site. The weekly CMAQ numerical output were created from version 4.6 of the model using CBIV mechanism.  The space-time Bayesian fusion model combines the monitoring data and CMAQ output to predict wet sulfate and nitrate deposition. The model assumes that both the actual monitoring data and the CMAQ data provide good information about the same underlying pollutant surface, but with different measurement error structures. It gives more weight to the accurate monitoring data in areas where monitoring data exists and relies on the CMAQ data and satellite data in areas where no monitoring data is available.

## IV. DISTRIBUTION TAB

FIELD	FIELD CONTENT
RESOURCE DESCRIPTION	Downloadable Data Files (.csv) containing Predictive Surfaces
DISCLAIMER/LIABILITY	Although these data have been processed successfully on a computer system at the Environmental Protection Agency, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. It is also strongly recommended that careful attention be paid to the contents of the metadata file associated with these data to evaluate data set limitations, restrictions or intended use. The U.S. Environmental Protection Agency shall not be held liable for improper or incorrect use of the data described and/or contained herein.
CUSTOM ORDER	
PROCESS	

## V. METADATA TAB

FIELD	FIELD CONTENT
* DATE CREATED	200908123
* STANDARD NAME	EPHTN TEMPLATE VERSION 1.1
* ACCESS CONSTRAINTS	Access for specific applications within use constraints
* USE CONSTRAINTS	The data are intended for use by statisticians in modeling efforts that
	require high resolution predictive spatial fields of air pollution.

## VI. CONTACTS TAB

### A. MATRIX PAGE

FIELD	FIELD CONTENT
* CONTACT 1 NAME	David M. Holland
* CONTACT 1 TYPE	Primary Statistician
CONTACT 2 NAME	Vasu Kilaru
CONTACT 2 TYPE	Primary Web Site Manager
CONTACT 3 NAME	
CONTACT 3 TYPE	
CONTACT 4 NAME	
CONTACT 4 TYPE	

## B. ORIGINATORS PAGE

FIELD	FIELD CONTENT
* PERSON	David Holland
* ORGANIZATION	US Environmental Protection Agency
* TITLE	Mathematical Statistician
USERID	
HOURS	
INSTRUCTIONS	
* PHONE NO. 1	919-541-3126
PHONE NO. 2	
* FAX	919-541-1138
* E-MAIL	Holland.david@epa.gov
TDD/TTY	

* STREET ADDRESS	109 T. W. Alexander Drive, E243-05 (NERL)
* CITY	Research Triangle Park
STATE	NC NC
COUNTRY	
* ZIP	27711

## C. DISTRIBUTORS PAGE

FIELD	FIELD CONTENT
* PERSON	David M. Holland
* ORGANIZATION	US Environmental Protection Agency
* TITLE	Mathematical Statistician
USERID	
HOURS	
INSTRUCTIONS	
* PHONE NO. 1	919-541-3126
PHONE NO. 2	
* FAX	919-541-1138
* E-MAIL	Holland.david@epa.gov
TDD/TTY	
* STREET ADDRESS	109 T. W. Alexander Drive, E243-05 (NERL)
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STATE	NC NC
COUNTRY	
* ZIP	27711

## D. METADATA CONTACTS PAGE

FIELD	FIELD CONTENT
* PERSON	Vasu Kilaru
* ORGANIZATION	US Environmental Protection Agency
* TITLE	Atmospheric Scientist
USERID	
HOURS	
INSTRUCTIONS	
* PHONE NO. 1	919-541-5332
PHONE NO. 2	
* FAX	919-541-1138
* E-MAIL	Kilaru.vasu@epa.gov
TDD/TTY	

* STREET ADDRESS	109 T. W. Alexander Drive, E243-05 (NERL)
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COUNTRY	
* ZIP	27711